

NOTES ON AUSTRALIAN LYCAENIDAE. VII.

DESCRIPTIONS OF NEW RACES.

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Since the last part in These PROCEEDINGS for 1928, more material has come to hand, and also Brigadier W. H. Evans has compared specimens I forwarded with the types in the British Museum and sent me notes thereon.

Genus HYPOCHRYSOPS Felder, 1860.

Wiener Ent. Monat., iv, 1860, p. 243; Reise Novara, Lepidoptera, 1865, p. 251;
Miletus, Waterhouse (not Hübner), *PROC. LINN. SOC. N.S.W.*, 1903, p. 158;
Miletus, Waterhouse and Lyell (not Hübner), *Butt. Aust.*, 1914, p. 84.

When in 1903 I used the generic name *Miletus* for these brilliant Lycaenids, I did so on the authority of Scudder (Historical Sketch, p. 219, 1875), who fixed as genotype *Papilio polycletus* Linn., the first species mentioned by Hübner. Mr. N. D. Riley informs me that Scudder's action was invalid, as Westwood (*Gen. Diurn. Lep.*, 1852, p. 502) definitely fixed *symethus* Cram., another species mentioned by Hübner, as the genotype. The appropriate name *Hypochrysops* Felder is available for these species. If the genotype has not already been fixed, I select *P. polycletus* Linn., the first species mentioned by Felder in 1860.

HYPOCHRYSOPS ELGNERI BARNARDI, n. subsp.

Male.—Upperside differs from the typical race in its brighter purple colour and having the veins (excepting near apex of forewing) outlined with bluish-purple when viewed obliquely. Underside, the ground colour is yellowish-brown and the markings are brighter than in the typical race.

Female.—Upperside differs from the typical race in having the orange areas much brighter and larger; in the allotype the orange extends to the termen of hindwing. Underside ground colour much paler, so that the markings, which are darker, stand out more prominently, orange central area of forewing brighter and larger.

Both sexes are considerably larger than those of the typical race from Prince of Wales Island.

Described from two pairs in the Australian Museum caught by Mr. W. B. Barnard at Cape York in June. The holotype male, in addition, has a dull orange central patch on the underside of forewing.

NACADUBA ANCYRA HALYS, n. subsp.

Nac. ancyra (in part), Waterhouse, *PROC. LINN. SOC. N.S.W.*, 1903, p. 225; *Nac. ancyra florinda*, Waterhouse & Lyell, *Butt. Aust.*, 1914, p. 97, figs. 318-321; *Nac. ancyra florinda*, Waterhouse, *What Butterfly is That?*, 1932, p. 155, pl. xxii, fig. 3.

Brigadier Evans has examined the holotype male of *florinda* from Lifu, Loyalty Is., in the British Museum. He says it is quite distinct from what is known in Australia as *florinda*. It is much bluer on the upperside and the markings on the underside are very much narrower, on the hindwing the bar at the end of cell is separated by its own width from the discal band, whereas in Australian specimens they are conjoined or nearly so.

As the race has been described and figured twice, there is no need to repeat the description here. I have assigned the type locality as Ballina, Richmond River, N.S.W., and the type series two males and a female caught in September, 1902. The race is found along the coast from the Manning River to Mackay, with Townsville specimens not quite typical. One specimen has been caught near Sydney, where its food plant grows in a few suitable localities. Specimens of the female from Brisbane in the winter have the blue areas above much more extended.

OGYRIS AMARYLLIS Hewitson.

Cat. Lycaenidae Brit. Museum, 1862, p. 3, No. 11, Pl. 1, figs. 5, 6.

Hewitson described this species from a female in the British Museum, from Moreton Bay, using the MS. name Newman had attached to the type. The species has a very wide range in Australia, both on the coast and inland. The typical race with broad margins to the wings on the upperside (especially in the female) is known only from Brisbane, Richmond River and Tuggerah. I have searched for it near Sydney, at Newport, where the *Loranthus* grows on which its larvae feed, but without success. I have specimens from all the States, excepting Tasmania, but the material is as yet insufficient to determine if there are more races than *hewitsoni* Waterhouse, 1902, from Townsville (Types in Australian Museum), *meridionalis* Bethune-Baker, 1905, from Victoria (Holotype male in British Museum from Birchip, 1st March, 1902) and the marked race from Canberra described below.

OGYRIS AMARYLLIS AMATA, n. subsp.

Male.—Upperside bright shining dark blue with a markedly broad black margin to the termen of both wings. Underside mottled browns and blacks with white bands lined with silky-blue across cell of forewing.

Female.—Upperside, shining dark blue with broader black margins than in male. Underside, similar to the male, but with a bright scarlet spot in cell of forewing.

This race is nearest to typical *amaryllis*, but in both sexes is smaller and the blue of the upperside is considerably darker and richer. The black termen of the hindwing in the male is as broad as that of the forewing, which is not the case in typical male *amaryllis*. The first specimen was caught near the Cotter River Dam, Canberra, F.C.T., by Mr. G. M. Goldfinch. The next year I found larvae and pupae in September; these were not attended by ants, which is unusual in this species. In November the race was not uncommon near the junction of the Murrumbidgee and Cotter Rivers. I have caught it there from October to March, the later specimens being worn. Males that emerged in October had a pupal duration of 43–45 days, both sexes that emerged in November had a pupal duration of 27–33 days.

The holotype male emerged on 16th November, 1929, the allotype female on 24th November, 1929, and, with paratypes of both sexes, are in the Australian Museum.

OGYRIS OLANE Hewitson.

Cat. Lycaenidae Brit. Museum, 1862, p. 2, No. 10, Pl. 1, figs. 10, 11.

Hewitson described and figured this species from a single female in his collection with no more definite locality than Australia. When, on his death, his collection went to the British Museum, the catalogue of it by Kirby shows that it contained only one specimen. This specimen, the holotype, has a label in Hewitson's writing "*olane*", with another label added later "Australia". Both Hewitson's description and figure, a copy of which is before me, have always occasioned comment, as the colour on the upperside is more extensive and bluer than any hitherto known specimen, and the size also is much smaller.

Miskin (These PROCEEDINGS, 1890, p. 27) remarks: "Hewitson's figure and description evidently represent the female, although the blue is shown as extending rather too much into the wing, but the colour agrees well."

Bethune-Baker, in his monograph on the genus *Ogyris* (*Trans. Ent. Soc. Lond.*, 1905, p. 283-4) says: "The description is of the form now found flying in Australia; it does not agree with the colour on the upperside of Hewitson's type, which is paler and brighter blue, the underside agrees, however, fairly closely. I have no doubt that the two insects are the same species, but that Hewitson's type may have undergone some change (possibly chemical) which has effected the difference in colour."

In July, 1933, Brigadier Evans examined the type and reported "The only difference in figure and type from three females in the British Museum is that the blue area above is lighter and may be due to age, chemicals, etc."

However, in the spring of 1933, Mr. E. O. Edwards sent me some specimens he had bred at Mitchell, Qld., about 300 miles west of Brisbane. I at once saw that both in colour and size the females agreed with Hewitson's figure. I then sent a Mitchell specimen to London with a female from the Blue Mts., N.S.W. Brigadier Evans replied in February, 1934: "Your Mitchell specimen looks just like a fresh specimen of the type marked Australia. The other three females in the British Museum are from Victoria and resemble the second specimen—purple instead of blue above."

The colour of the type female therefore has not changed, but represents the true colour of inland specimens. It is not easy to understand how a specimen from an inland locality reached London earlier than 1862. At that time it is very doubtful if it could have come from anywhere near Mitchell. It may have come from western New South Wales, as I have a similar, though worn, female from Brewarrina caught by Mr. G. H. Wylde.

I cannot understand why Bethune-Baker places *Ogyris catharina* Felder, 1865, as a synonym of *O. olane*. Felder begins his description "*♂*. Alae supra dilute cyaneae", and begins his description of *Hypochrysops theon* with the same words. This shows that it cannot have anything to do with *olane*, but must be one of the races of *O. amaryllis* or *O. oroetes*. Until the type is found the question cannot be settled.

OGYRIS OLANE OLANE Hewitson, 1862.

The male is much smaller than coastal specimens and the purple of the upperside is slightly brighter and, in the three males before me, extends into the cell of the forewing and on the hindwing extends much nearer the termen. The females can readily be distinguished by the blue colour of the upperside.

The material before me consists of two males bred from Mitchell in October; six females from Mitchell bred in May, September and October; a worn pair from Brewarrina caught in September. Mr. Edwards found that at Mitchell the larvae varied in colour and the pupal duration was 26-36 days. Mr. M. W. Mules has sent me a bred pair from Woodside, S. Aust. These are small, but not quite typical. The other three South Australian specimens before me are old and worn. From Clermont, Qld., Mr. E. J. Dumigan sent me a pair which also are not quite typical, but much nearer the next race. More material is required from both these localities. All the above specimens are in the Australian Museum, excepting one male from Mitchell, belonging to Mr. Edwards.

At Brewarrina and Clermont, both *O. olane* and the allied *O. barnardi* were caught, the latter being much commoner. At Mitchell, *O. barnardi* has not been found, whilst at Milmeran, about 200 miles away, Mr. J. Macqueen has so far only taken *O. barnardi*.

OGYRIS OLANE OCELA, n. subsp.

O. olane, Anderson and Spry, *Vict. Butt.*, 1893, p. 105, fig.; Bethune-Baker, *Trans. Ent. Soc. Lond.*, 1905, p. 283; Waterhouse and Lyell, *Butt. Aust.*, 1914, p. 119, figs. 391-2, 421, 423.

This is the *Ogyris olane* of all previous writers, excepting the original description and figure of Hewitson, and is well known to collectors. In both sexes it is considerably larger than the typical race.

Female.—Upperside brown, apical area of forewing paler brown, centrobasal areas of both wings purple, not always, as in holotype, entering cell of forewing.

Male.—Upperside brown with centrobasal areas very dull purple.

As the type of the typical race is a female, I have assigned a female from Woodford, N.S.W., bred on 9th October, 1933, as the holotype of this race, with allotype male and paratypes in the Australian Museum from the same locality, bred from September to November. It is found in the Blue Mts. from Glenbrook to Mt. Victoria (500 to 3,500 ft.). I have taken it about 80 feet above sea-level 30 miles west of Sydney. Victorian specimens from near sea-level to about 2,000 feet are this race, and also the few Mr. L. Franzen has sent me from Brisbane.

DEUDORYX EPIJARBAS DIDO, n. subsp.

D. epijarbas diovis (in part) Waterhouse and Lyell, *Butt. Aust.*, 1914, p. 132, figs. 199, 200 (not fig. 198).

Male.—Upperside, forewing black, central patch below cell extending to base dull red; cilia faintly brown. Hindwing dull red with veins black, costa and base black; cilia brown. Underside, similar to *D. epijarbas diovis*, but with a purplish suffusion over wings and fewer metallic scales near tornus of hindwing.

Female.—Upperside, brown with costa and termen of forewing broadly dark brown; cilia brown. Underside as in male, but purplish suffusion not so marked.

The holotype male is from Kuranda, Qld., in March, and the allotype female from Kuranda in February, with paratypes from Kuranda in February to April in the Australian Museum.

The description of the race *diovis* given in 1914 was taken chiefly from Kuranda specimens, as we had a longer and better series from there at that time. A fine series from Brisbane shows that the colour of the males is much brighter, the cilia are orange-red and the veins of the hindwing are only marked with black just near the termen. The female is grey-brown and has orange-red

cilia like the male. In both sexes the metallic scales are more numerous near the tornus of hindwing below. That portion of the face between the eyes and below the base of the antennae has an orange-red patch in *diovis*, whereas in *dido* it is smaller and brown.

Brigadier Evans has examined the specimens of *D. epijarbas* from Australia in the British Museum, and finds that the above distinctions hold as to locality. Both Hewitson's description and figures of *diovis* show that his types must have come from near Brisbane. They agree with other specimens from Brisbane in the British and Australian Museums. The type male is labelled "Austral. Strang. *diovis*." in Hewitson's handwriting. Strang. doubtless means Frederick Strange, who did not collect very far north of Brisbane. As far as the specimens before me show, the race *diovis* is found from the Manning River to Mackay.
